=> d his

(FILE 'HOME' ENTERED AT 07:39:58 ON 12 JAN 2007)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS, CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB, DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 07:40:13 ON 12 JAN 2007

SEA AMYLASE

142	FILE ADISCTI
45	FILE ADISINSIGHT
366	FILE ADISNEWS
5422	FILE AGRICOLA
669	FILE ANABSTR
235	FILE ANTE
59	FILE AQUALINE
959	FILE AQUASCI
2334	FILE BIOENG
29804	FILE BIOSIS
6227	FILE BIOTECHABS
6227	FILE BIOTECHDS
4194	FILE BIOTECHNO
11223	FILE CABA
48251	FILE CAPLUS
1682	FILE CEABA-VTB
118	FILE CIN
533	FILE CONFSCI
244	FILE CROPB
291	FILE CROPU
1237	FILE DDFB
1610	FILE DDFU
24179	FILE DGENE
878	FILE DISSABS
1237	FILE DRUGB
157	FILE DRUGMONOG2
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79	FILE EMBAL
17027	FILE EMBASE
5245	FILE ESBIOBASE
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19336	FILE GENBANK
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4016	FILE IFIPAT
16	FILE IMSDRUGNEWS
217	FILE IMSPRODUCT
21	FILE IMSRESEARCH
6771	FILE JICST-EPLUS
23	FILE KOSMET
4824	FILE LIFESCI
22531	FILE MEDLINE
167	FILE NTIS
2	FILE NUTRACEUT
263	FILE OCEAN
11834	FILE PASCAL
639	FILE PCTGEN
30	FILE PHAR
7	FILE PHARMAML
125	FILE PHIN
766	FILE PROMT

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            91   FILE PROUSDDR
            31   FILE RDISCLOSURE
         19225   FILE SCISEARCH
         10258   FILE TOXCENTER
         21314   FILE USPATFULL
          2484   FILE USPAT2
            58   FILE VETB
           247   FILE VETU
            72   FILE WATER
          8563   FILE WPIDS
            60   FILE WPIFV
          8563   FILE WPINDEX
L1            QUE AMYLASE
              ---------

     FILE 'CAPLUS, BIOSIS, MEDLINE, SCISEARCH, EMBASE, PASCAL, CABA,
     TOXCENTER, WPIDS, FSTA, JICST-EPLUS, BIOTECHDS, AGRICOLA, ESBIOBASE,
     LIFESCI, BIOTECHNO' ENTERED AT 07:41:25 ON 12 JAN 2007
L2          9502 S L1 AND (MUTANT OR VARIANT)
L3             0 S L2 AND (ASP128, GLY140, SER144,)
L4             4 S L2 AND (POSITION 128)
L5             1 DUP REM L4 (3 DUPLICATES REMOVED)
L6             0 S L2 AND (POSITION 140,POSITION 144,POSITION 168, POSITION 181
L7             0 S L2 AND (AMINO ACID 140)
L8             0 S L2 AND (ASPL28, GLYL40, SER144, ARG168, ASNL8L, GLU207, PHE2
```

=> d l5 ibib ab

L5 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2000:842252 CAPLUS
DOCUMENT NUMBER: 134:14747
TITLE: Subtilase enzymes of the I-S1 and I-S2 subgroups having at least one additional amino acid residue between **positions 128** and 129 with improved wash performance
INVENTOR(S): Vilbour, Andersen Kim; Mikkelsen, Frank F.; Kamp, Hansen Peter; Norregaard-Madsen, Mads
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 20
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000071690	A1	20001130	WO 2000-DK241	20000510
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1183342	A1	20020306	EP 2000-925092	20000510
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: DK 1999-712 A 19990520
WO 2000-DK241 W 20000510

AB Subtilase enzymes of the I-S1 and I-S2 sub-groups are provided having an addnl. amino acid residue in **position 128** of the active site loop (c) region from positions 125 to 132. Specifically, Savinase (Bacillus lentus subtilisin 309) **variants** are provided having at least one amino acid residue inserted in between **positions 128** and 129 (numbering based on subtilisin BPN'). Site-specific mutagenic primers are used to insert the desired codons at the desired position(s) of the wild-type gene, and the **mutant** genes are used to transform Escherichia coli or Bacillus subtilis for the fermentation and purification of **variant** subtilisins. These **variant** subtilases exhibit improved wash performance in a detergent in comparison to its parent enzyme. Although this finding was done in subtilisin 309, it is predicted that it will be possible to produce or isolate similar advantageous subtilases or subtilase **variants**. The invention further relates to genes coding for the expression of said enzymes when inserted into a suitable host cell or organism, host cells transformed therewith and capable of expressing said enzyme **variants**, and methods for producing the novel enzymes.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l2 and (position 140,position 144,position 168, position 181, position 207, position 272, position 375, position 434,position 466)
12 FILES SEARCHED...
L6 0 L2 AND (POSITION 140,POSITION 144,POSITION 168, POSITION 181, POSITION 207, POSITION 272, POSITION 375, POSITION 434,POSITION 466)

```
=> s l2 and (amino acid 140)
   1 FILES SEARCHED...
  12 FILES SEARCHED...
L7            0 L2 AND (AMINO ACID 140)

=> s l2 and (Aspl28, Glyl40, Ser144, Arg168, Asnl8l, Glu207, Phe272, Ser375,
Trp434, Glu466)
L8            0 L2 AND (ASPL28, GLYL40, SER144, ARG168, ASNL8L, GLU207, PHE272,
                 SER375, TRP434, GLU466)
```

Refine Search

Search Results -

Term	Documents
ASPL28	0
ASPL28S	0
GLYL40	0
GLYL40S	0
SER144	3
SER144S	0
ARG168	11
ARG168S	0
ASNL8L	0
ASNL8LS	0
GLU207	4
(ASPL28, GLYL40, SER144, ARG168, ASNL8L, GLU207, PHE272, SER375, TRP434, GLU466).PGPB,USPT,USOC,EPAB,JPAB,DWPI.	0

There are more results than shown above. Click here to view the entire set.

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:
L2 and (position 128, position 140, position 144, position 168, position 181, position 207, position 272,

Refine Search

Recall Text Clear Interrupt

Search History

DATE: Friday, January 12, 2007 Purge Queries Printable Copy Create Case

Set Name side by	Query	Hit Count	Set Name

side			result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ			
L5	Aspl28, Glyl40, Ser144, Arg168, Asnl8l, Glu207, Phe272, Ser375, Trp434, Glu466	0	L5
L4	L3 and (Aspl28, Glyl40, Ser144, Arg168, Asnl8l, Glu207, Phe272, Ser375, Trp434 Glu466)	0	L4
L3	L2 same (variant or mutant)	4873	L3
L2	amylase	32511	L2
L1	amylase	32511	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Term	Documents
AMYLASE	27945
AMYLASES	8961
SER375	3
SER375S	0
(SER375 SAME AMYLASE).PGPB,USPT,USOC,EPAB,JPAB,DWPI.	0
(AMYLASE SAME SER375).PGPB,USPT,USOC,EPAB,JPAB,DWPI.	0

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L20

Refine Search | Recall Text | Clear | Interrupt

Search History

DATE: Friday, January 12, 2007 **Purge Queries** Printable Copy Create Case

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L20	amylase same Ser375	0	L20
L19	amylase same Trp434	0	L19
L18	amylase same Glu466	0	L18
L17	(amylase same Glu466).clm.	0	L17
L16	(amylase same Trp434).clm.	0	L16

L15	(amylase same Ser375).clm.	0	L15
L14	(amylase same Phe272).clm.	0	L14
L13	(amylase same Glu207).clm.	1	L13
L12	(amylase same Asn 181).clm.	0	L12
L11	(amylase and Arg 168).clm.	0	L11
L10	(amylase and Ser 144).clm.	0	L10
L9	(amylase and Gly140).clm.	0	L9
L8	(amylase and Asp 128).clm.	0	L8
L7	L2 and (position 128)	251	L7
L6	L2 and (position 144)	341	L6
L5	Aspl28, Glyl40, Ser144, Arg168, Asnl8l, Glu207, Phe272, Ser375, Trp434, Glu466	0	L5
L4	L3 and (Aspl28, Glyl40, Ser144, Arg168, Asnl8l, Glu207, Phe272, Ser375, Trp434 Glu466)	0	L4
L3	L2 same (variant or mutant)	4873	L3
L2	amylase	32511	L2
L1	amylase	32511	L1

END OF SEARCH HISTORY